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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,051	06/26/2001	Volker Mauer	ALT.P003	1778
27296	7590	07/19/2005	EXAMINER	
LAWRENCE M. CHO P.O. BOX 2144 CHAMPAIGN, IL 61825			CHANG, EDITH M	
			ART UNIT	PAPER NUMBER
			2637	

DATE MAILED: 07/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/892,051	<b>Applicant(s)</b> MAUER, VOLKER	
	<b>Examiner</b> Edith M. Chang	<b>Art Unit</b> 2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1,2,5,6,8-10,12,14,15 and 21 is/are allowed.
- 6) ☒ Claim(s) 11,13,16-20 and 22-24 is/are rejected.
- 7) ☒ Claim(s) 3,4 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments/Remarks***

1. Applicant's arguments, see pages 8-11, filed on February 03, 2005, with respect to claims 16-21 have been fully considered and are persuasive. The rejection of claims 16-21 has been withdrawn.

### ***Claim Objections***

2. Claims 3, 7 and 16-20 are objected to because of the following informalities:

Claim 3, line 2: "the first and second sequence" is suggested changing to "the first and second sequences".

Claim 7, line 2: "and coefficients" is suggested changing to "with coefficients"; line 4: "and the coefficients" is suggested changing to "with coefficients".

Claim 16, line 4: "n contiguous coefficients" should be "n contiguous corresponding coefficients" as the antecedent basis of "with corresponding coefficients" recited in claim 20 line 2.

Claims 17-20 are dependent on the objected claim 16.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 11, 13, 16-20 and 22-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 11 & 13, line 2: "the sample" lacks antecedent basis.

Claim 16, line 5 & lines 6-7: "the plurality of sets of sample values" lack antecedent basis.

Claim 17, line 2: "the sample sequences" lacks antecedent basis.

Claims 18 & 19, line 2: "a different time step" is the one "a different time step" recited in claim 16 line 7, or another "a different time step". The limitation "a different time step" does not clearly indicate that the time step regarding the invention.

Claim 22, line 2: "an addition-multiplication tree" does not indicate that any connection or relation with the "a processing unit that processes the sample values...with corresponding coefficients..." with the addition-multiplication tree, wherein the sample values are in the plurality of sample sequence registers and the corresponding coefficients are in the plurality of code sequence registers. What is the role of the addition-multiplication tree of the processing unit to do with processing the sample values in the plurality of sample sequence registers with the corresponding coefficients in the plurality of code sequence registers of the processing unit? The claim fails to indicate the necessary structural cooperative relationships of elements recited in the claim.

Claims 20 and 23-24 are dependent on the rejected claims 16 and 21.

***Allowable Subject Matter***

5. Claims 1-2, 5-6, 8-10, 12, 14-15 and 21 are allowed.
6. Claims 3-4 and 7 would be allowable if rewritten to overcome the objections set forth in this Office action.
7. Claims 11, 13, 16-20 and 22-24 would be allowable if rewritten or amended to overcome the rejections under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

8. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not teach or suggest, alone or in a combination, among other things, at least a correlator unit and it method of managing the code sequence as a whole, the combination of elements and features as claimed, which includes a processing unit processing the sample values in each of a plurality of sets of sample values from a plurality of sample sequences stored in a plurality of  $n$  sample sequence registers at a time, in parallel with corresponding  $2n$  coefficients stored in a plurality of  $2n$  code sequence registers during a different time step; or processing the second sample values with the first and second code sequences to determine third partial accumulation results during the second time step; and generating a correlating result for the second sample values in response the first and third partial accumulation results as cited in the claims.

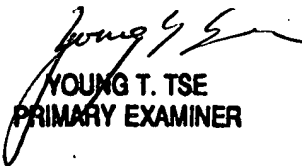
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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edith M. Chang whose telephone number is 571-272-3041. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay K. Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edith Chang  
July 13, 2005

  
YOUNG T. TSE  
PRIMARY EXAMINER